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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,037	05/02/2006	David Dillon	102980.58649US2	5332
23911 7590 05/04/2010 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300				
EXAMINER				
KUCAB, JAMIE R				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,037

Applicant(s)

DILLON, DAVID

Examiner

JAMIE KUCAB

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-20 and 32-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/CI)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Paper No(s)/Mail Date November 8, 2007, April 18, 2007, January 4, 2007,
December 21, 2006, December 1, 2006, and May 9, 2006.

DETAILED ACTION

Acknowledgements

1. This action is responsive to the following communications: Response to Election/Restriction filed December 22, 2009.
2. Claims 1-57 are pending in the application.
3. Claims 1-20 and 32-57 are withdrawn from consideration.
4. Claims 21-31 are examined below.
5. This Office action is given Paper No. 20100426 for reference purposes only.
6. Based on a comparison of the PGPub US 2007/0100761A1 with Applicant's originally submitted specification, the PGPub appears to be a fair and accurate record of the Applicant's specification. Therefore, except where otherwise noted, references to Applicant's specification refer to paragraph numbers in the PGPub.
7. All references to the capitalized version of "Applicant" refer specifically to the Applicant of record in the instant application. Any references to lowercase versions of "applicant" or "applicants" refer to any or all patent applicants. References to the capitalized version of "Examiner" refers to the Examiner of record while reference to or use of the lower case version of "examiner" or "examiners" refers to examiners generally.
8. The notations in the two immediately preceding paragraphs apply to any future Office actions from this Examiner.

Information Disclosure Statement

9. The information disclosure statements submitted on November 8, 2007, April 18, 2007, January 4, 2007, December 21, 2006, December 1, 2006, and May 2, 2006 are in compliance with the provisions of 37 CFR § 1.97. Accordingly, the information disclosure statements are being considered by the Examiner.

10. Regarding the IDS submitted December 21, 2006, this IDS appears to be intended for related application 10/701,377. The references disclosed in this IDS are identical to those in the IDS submitted January 4, 2007, and the application number at the top of each sheet of the IDS is 10/701,377, though the cover sheet does indicate that the IDS is intended for the instant application.

Declaration

11. The Applicant's declaration submitted on May 2, 2006 has been reviewed by the Examiner and is found to conform to the requirements of 37 CFR 1.63.

Claim Rejections - 35 USC § 112, Second Paragraph

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 21-31 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

14. Regarding claim 21, Applicant's recitation "an actual probability of guessing any of the subset of unique code strings" would have been unclear to a person having ordinary skill in the art at the time of the invention. It is unclear what constitutes an actual probability. For the purpose of comparison with the prior art, the Examiner is interpreting the actual probability to be a probability that is statistically determined by sampling the unique code strings and checking for duplicates.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 21-23, 25, and 26, as understood by the Examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Doljack et al. (US Patent 7,283,630, hereafter "Doljack") in view of Hamid (US Patent 6,038,334).

17. Regarding claim 21, Doljack discloses all the elements of the claimed invention including:

a. providing a code string model ("64 bit binary code," C8 L63) having finite parameters (parameter 1: binary, parameter 2: 64), the finite parameters used to define a total quantity of unique code strings that can be derived from the code string model ("The number of possible 64 bit binary codes is 2^{64} , which is 1.8×10^{19} different numbers." C8 L64-65);

b. providing a subset of unique code strings ("100 million unique 64 bit codes," C8 L64) as a quantity of unique code strings selected for use from the total quantity of unique code strings ("to mark 100 million similar products," C8 L66), the subset of unique code strings being at least one hundred times smaller than the total quantity of unique code strings ($((1.8 \times 10^{19}) / 100 \text{ million} = 180,000,000,000$. That is, the subset of unique code strings is 180 trillion times smaller than the total quantity of unique code strings.);

c. randomly generating the subset of unique code strings from the total quantity of unique code strings ("GENERATE RANDOM CODES," step 60 in Fig. 2);

d. associating attributes ("a non-random code," C10 L20) to one or more of the subset of unique code strings ("each random code is combined with a non-

random code to thereby form a combination code," C10 L20-21), the attributes defining characteristics regarding the instantiations to which the one or more of the subset of unique code strings will be marked on or affixed to ("The non-random code may be, for example, the initials of the manufacturer, a tradename or other easily recognizable moniker or message," C10 L21-23);

- e. providing a secure server (local computer 52, Fig. 1) having a database (secure host database 24) used to store the subset of unique code strings ("the generated random codes are stored within the secure host database 24," C7 L54-55);
- f. storing the subset of unique code strings within the database on the secure server ("STORE RANDOM CODES IN A DATABASE," step 62, Fig. 2);
- g. marking each of a quantity of the instantiations with one of the code strings of the subset ("MARK EACH PRODUCT WITH A RANDOM CODE," step 64, Fig. 2);
- h. distributing the marked instantiations along a chain of commerce ("PLACE MARKED PRODUCTS INTO COMMERCE," step 66, Fig. 2);
- i. validating the authenticity of one of the marked instantiations during distribution, the marked instantiation validated through exchange of transmitted signals between the secure server and a communication device ("At a retail distribution outlet such as a retail store or alternatively, at any point earlier in the distribution chain, the codes are read from the marked products and compared to random codes contained within a database in which the codes are stored upon

their initial generation. If the scanned product code is not verified as a valid code, the product is identified as a counterfeit. If the product code is a valid product code a further inquiry may be made to determine whether the valid code has previously been used." C6 L13-22);

j. wherein the communication device ("scanner 50") receives an entry of the unique code string and transmits an inquiry signal containing the unique code string to the secure server ("The scanner 50 scans the code on the tag 34, preferably by scanning the bar code which is a visual representation of the binary or alphanumeric random code being utilized. The scanner 50 takes the random code that has been scanned and downloads the scanned random code to the local computer 52." C8 L14-L25);

k. wherein the secure server receives the inquiry signal to reveal the scanned unique code string, searches the database thereon to validate the authenticity of the unique code string ("The local computer 52, in accessing the secure host database 24, then compares the scanned random product code to those codes contained within the secure host database 24 at step 70 to verify whether the scanned random code is valid," C8 L26-34), and transmits a return signal to the field reader regarding validation of the authenticity of the marked instantiation ("display the decrypted code on a display portion of the scanner 50 so that the user scanning the tags can visually view the non-random code portion and thereby verify authenticity," C11 L27-28).

18. Although Doljack discloses defining a probability of guessing any of the subset of unique codes strings ("1 in 1.8×10^{11} ," C9 L10) and verifying an actual probability of guessing any of the subset of unique code strings ("check codes on products within the distribution channel in order to statistically determine a lack of duplicity," C13 L40-41), Doljack fails to explicitly disclose that the probability is a maximum probability and verifying that the actual probability is less than the maximum probability.

19. However, Hamid teaches

l. defining a maximum probability of guessing any of the subset of unique code strings ("predetermined limits," C9 L3-9);

m. verifying that an actual probability of guessing any of the subset of unique code strings is less than the maximum probability of guessing any of the subset of unique code strings ("Identification of an individual is performed by evaluating resulting values from the registration to determine a probability, for those results, of false acceptance and false rejection. When the value is within predetermined limits for an acceptable value, identification is provided. When the value falls outside the predetermined limits identification is not provided.," C9 L3-9);

20. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Doljack to include the maximum probability and verification of probability of Hamid in order to achieve the predictable result of achieving a desired security level.

21. Regarding claim 22, Doljack fails to explicitly disclose wherein the storing step further includes storing the attributes assigned to the unique code strings within the

database of the secure server. However, Doljack does teach that the attributes are combined with the random code to form a combination code as discussed above. At some point this combination code must be stored before being transmitted. Storing the combination code in the database of the secure server would have been one of a finite number of options for storing the combination code. Therefore, the claim would have been obvious because "a person of ordinary skill has a good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."

22. Regarding claim 23, Doljack further discloses wherein the validating authenticity step further includes searching the database for the attributes in order to determine tracking parameters of the marked instantiations ("VERIFY CORRECT NON-RANDOM PORTION VERIFY NO DUPLICATES," block 406, Fig. 9).

23. Regarding claim 25, Doljack further discloses wherein the marking instantiations step comprises marking each unique code string of the subset on a corresponding label ("the printer 26 generates the codes on a tag or label 34," C7 L1-2).

24. Regarding claim 26, Doljack further discloses wherein the marking instantiations step comprises affixing the marked labels to corresponding instantiations ("the printer 26 generates the codes on a tag or label 34 ... which is then attached or affixed to the products 36," C3 L1-3).

25. Claims 24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doljack/Hamid in view of Miolla et al. (US PGPub No. 2002/0146146 hereafter "Miolla").

26. Regarding claim 24, although Doljack/Hamid fails to explicitly disclose wherein the validating authenticity step further includes storing current location information of the marked instantiations when the tracking parameters are determined to be valid.

27. However, Miolla teaches storing current location information of the marked instantiations when the tracking parameters are determined to be valid ("The payload conveys manufacturing details, such as batch, location and/or date of manufacture." [0028]).

28. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the validating authenticity step of the method of Doljack/Hamid to include the storing current location information of Miolla in order to achieve the predictable result of tracking product location and movement.

29. Regarding claims 27-29, Doljack/Hamid fails to explicitly disclose

a. wherein the marking instantiations step comprises using the process of watermarking;

b. wherein the watermarking process comprises digital watermarking, and wherein the unique code strings of the subset are each embedded in a corresponding label; and

c. wherein a deciphering step is performed to identify each of the embedded unique code strings of the subset before the unique codes strings of the subset can be authenticated.

30. However, Miolla teaches:

- a. wherein the marking instantiations step comprises using the process of watermarking ("digital watermark," Abstract);
 - b. wherein the watermarking process comprises digital watermarking, and wherein the unique code strings of the subset are each embedded in a corresponding label ("digital watermark," Abstract); and
 - c. wherein a deciphering step is performed to identify each of the embedded unique code strings of the subset before the unique codes strings of the subset can be authenticated ("a reading component that detects and reads the embedded watermark." [0014]).
31. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Doljack/Hamid to include the watermarking of Miolla in order to achieve the predictable result of covertly embedding tracking information in a product label.
32. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doljack/Hamid in view of Examiner's Official Notice.
33. Doljack/Hamid discloses all the elements of the claimed invention. But Doljack/Hamid fails to explicitly disclose wherein the authenticity validation step further includes using a schema for the exchange of transmitted signals between the secure server and the communication device, and wherein the schema is an industry standard and wherein the schema is of an XML format.

34. However, the Examiner takes Official Notice that it is old and well known in the art to exchange data between computers using XML because is a common data format that is easily ported between different systems.

35. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of Doljack/Hamid to include the XML data transfer between computers of Examiner's Official Notice because all the claimed steps were known in the prior art and one skilled in the art could have combined the steps as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

36. Any Official Notices taken by the Examiner that are not adequately traversed by Applicant will be taken to be admitted prior art.

Response to Arguments

37. Applicant's election with traverse of Group II (i.e., claims 21-31) in the response filed December 22, 2009 is acknowledged. The traversal is on the grounds that the special technical features identified are found in the dependent claims. This is not found persuasive because after further consideration and comparison with the prior art, Group II lacks a special technical feature (see §103 rejection above). Because Group II lacks a special technical feature, Group II cannot relate to a single general inventive concept shared by the other identified groups. A courtesy call was placed to Stephen Palan (Reg. No. 43,420) to inform Applicant of the change in rationale for the restriction,

and it did not result in a change to the election. The requirement is still deemed proper and is, therefore, made FINAL.

Double Patenting

38. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

39. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

40. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

41. Claims 21-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-11, 13-18, 35, 37-40, and 42-48 of copending Application No. 10/701,377. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ merely in terminology. Those limitations not explicitly disclosed in the claims of application 10/701,377 would be obvious in view of the claims of application 10/701,377 and either Miolla or Examiner's Official Notice as applied above.

42. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

43. References considered pertinent to Applicant's disclosure are listed on form PTO-892. All references listed on form PTO-892 are cited in their entirety.

44. Applicant is respectfully reminded that any suggestions or examples of claim language provided by Examiner are just that—suggestions or examples—and do not constitute a formal requirement mandated by Examiner. To be especially clear, any suggestion or example provided in this Office action (or in any future Office action) does not constitute a formal requirement mandated by Examiner.

a. Should Applicant decide to amend the claims, Applicant is also reminded that—like always—no new matter is allowed. Examiner therefore leaves it up to Applicant to choose the precise claim language of the amendment in order to ensure that the amended language complies with 35 U.S.C. § 112, first paragraph.

b. Independent of the requirements under 35 U.S.C. § 112, first paragraph, Applicants are also respectfully reminded that when amending a particular claim, all claim terms must have clear support or antecedent basis in the specification. See 37 C.F.R. § 1.75(d)(1) and MPEP § 608.01(o). Should Applicant amend the claims such that the claim language *no longer* has clear support or antecedent basis in the specification, an objection to the specification may result. Therefore, in these situations where the amended claim language does not have clear support or antecedent basis in the specification and to prevent a subsequent 'Objection to the Specification' in the next office action, Applicant is encouraged to either (1) re-evaluate the amendment and change the claim language so the claims *do* have clear support or antecedent basis or, (2) amend the specification to ensure that the claim language does have clear support or antecedent basis. See again MPEP § 608.01(o) (¶3). Should Applicant choose to amend the specification, Applicant is reminded that—like always—no new matter in the specification is allowed. See 35 U.S.C. § 132(a).

45. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jamie Kucab whose telephone number is 571-270-3025. The Examiner can normally be reached on Monday-Friday 9:30am-6:00pm EST.
46. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Fischer can be reached on 571-272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
47. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jamie Kucab/
Examiner, Art Unit 3621